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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,491	08/25/2003	Matt Person	P06603US0	2377
34082	7590	06/23/2004	EXAMINER	
ZARLEY LAW FIRM P.L.C. CAPITAL SQUARE 400 LOCUST, SUITE 200 DES MOINES, IA 50309-2350			TRIEU, THAI BA	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/647,491	PERSON, MATT	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thai-Ba Trieu	3748	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to the Amendment filed on May 20, 2004.

Applicant's cooperation in correcting the informalities in the drawing and specification is appreciated. Claims 3 and 11 were amended.

Applicant's arguments, see Pages 11-15, filed on May 20, 2004, with respect to the rejection(s) of claim(s) 1-15 under double patenting and 103 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is set forth below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claims 1-2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruns (Patent number DE 423 29 999 A1).***

Bruns discloses a rotary internal combustion engine comprising:

a compression chamber (formed by 1,3) adapted to receive fuel and compress the fuel (See Figure 3);

an ignition chamber (formed 2,4) adapted to receive compressed fuel from the compression chamber and combust the compressed fuel (See Figure 3); and

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a separation wall (Not Numbered) between the compression chamber (formed by 1,3) and ignition chamber (formed 2,4) adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber (See Figure 3);

a first rotor (3) rotatably received within the compression chamber (formed by 1,3) and a second rotor (4) rotatably received within the ignition chamber (Formed by 2,4) (See Figure 3); and

a transfer slot (15) in the separation wall (Not numbered) adapted to permit compressed fuel to move from the compression chamber (Formed by 1,3) into the ignition chamber (Formed by 2,4) (See Figure 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), Fanning (patent Number 2,359,903).***

Bruns discloses the invention as recited above; however, Bruns fails to disclose each rotor having a slideable vane and the chamber having an epicycloidal shaped wall.

Fanning teaches that it is conventional in the rotary motor art, to utilize each rotor (15) has a vane (17) slidably mounted in a radially extended slot so that rotation of the rotors will cause outer ends of the vane (17) to engage the chambers (Formed by 10

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and 22; and by 12 and 24) to vary the space on opposite sides of the vane (17) when the rotors (15) are rotating, and the shaped wall of the compression and ignition chamber being epicycloidal (See Figures 1 and 3, Page 1, Column 2, lines 20-28, Page 2).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized each rotor having a slideable vane and the epicycloidal shaped wall of the chambers, as taught by fanning, to eliminate the fluid slip or leakage, in the Bruns device.

***Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Design choice.***

Bruns discloses the invention as recited above; however, Bruns fails to disclose the second  $0^0$  position being offset in relation to the first  $0^0$  position between 0 and 45 degrees.

One having an ordinary skill in the rotary engine art, would have found the second  $0^0$  position being offset in relation to the first  $0^0$  position between 0 and 45 degrees, as a matter of design choice depending on the engine requirements. Moreover, there is nothing in the record, which establishes that the claimed positions of the first  $0^0$  position being offset in relation to the second  $0^0$  position, presents a novel or unexpected result (See *In re Kuhle*, 526 F. 2d 553, 188 USPQ 7 (CCPA 1975)).

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***Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Zabriskie (Patent Number 1,267,157).***

Bruns discloses the invention as recited above; however, Bruns fails to disclose a plurality of the rotary internal combustion engines being used in series along the same axis rotation.

Zabriskie teaches that it is conventional in the rotary engine art, to utilize a plurality of the rotary internal combustion engines (10, 11) being used in series along the same axis rotation (29) (See Figure 1).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a plurality of the rotary internal combustion engines being used in series along the same axis rotation, as taught by Zabriskie, to improve the efficiency of the modified Bruns device, since the use thereof would have increased the power of the engine.

***Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Fanning (Patent Number 2,359,903).***

Bruns discloses a rotary internal combustion engine comprising:

a compression chamber (formed by 1,3) adapted to receive fuel and compress the fuel (See Figure 3);

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an ignition chamber (formed 2,4) adapted to receive compressed fuel from the compression chamber and combust the compressed fuel (See Figure 3); and

a separation wall (Not Numbered) between the compression chamber (formed by 1,3) and ignition chamber (formed 2,4) adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber (See Figure 3);

a first rotor (3) rotatably received within the compression chamber (formed by 1,3) and a second rotor (4) rotatably received within the ignition chamber (Formed by 2,4) (See Figure 3); and

a transfer slot (15) in the separation wall (Not numbered) adapted to permit compressed fuel to move from the compression chamber (Formed by 1,3) into the ignition chamber (Formed by 2,4) (See Figure 1).

Bruns discloses the invention as recited above; however, Bruns fails to disclose each rotor having a slideable vane and the chamber having an epicycloidal shaped wall.

Fanning teaches that it is conventional in the rotary motor art, to utilize each rotor (15) has a vane (17) slidably mounted in a radially extended slot so that rotation of the rotors will cause outer ends of the vane (17) to engage the chambers (Formed by 10 and 22; and by 12 and 24) to vary the space on opposite sides of the vane (17) when the rotors (15) are rotating, and the shaped wall of the compression and ignition chamber being epicycloidal (See Figures 1 and 3, Page 1, Column 2, lines 20-28, Page 2).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized each rotor having a slideable vane and the

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epicycloidal shaped wall of the chambers, as taught by fanning, to eliminate the fluid slip or leakage, in the Bruns device.

***Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Fanning (Patent Number 2,359,903), and further in view of Design choice.***

The modified Bruns discloses the invention as recited above; however, fails to disclose the second 0<sup>0</sup> position being offset in relation to the first 0<sup>0</sup> position between 0 and 45 degrees.

One having an ordinary skill in the rotary engine art, would have found the second 0<sup>0</sup> position being offset in relation to the first 0<sup>0</sup> position between 0 and 45 degrees, as a matter of design choice depending on the engine requirements. Moreover, there is nothing in the record, which establishes that the claimed positions of the first 0<sup>0</sup> position being offset in relation to the second 0<sup>0</sup> position, presents a novel of unexpected result (See *In re Kuhle*, 526 F. 2d 553, 188 USPQ 7 (CCPA 1975)).

***Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruns (Patent Number DE 42 29 999 A1), in view of Fanning (Patent Number 2,359,903), and further in view of Zabriskie (Patent Number 1,267,157).***

The modified Bruns discloses the invention as recited above; however, fails to disclose a plurality of the rotary internal combustion engines being used in series along the same axis rotation.



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Zabriskie teaches that it is conventional in the rotary engine art, to utilize a plurality of the rotary internal combustion engines (10, 11) being used in series along the same axis rotation (29) (See Figure 1).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a plurality of the rotary internal combustion engines being used in series along the same axis rotation, as taught by Zabriskie, to improve the efficiency of the modified Bruns device, since the use thereof would have increased the power of the engine.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Loubiere (Patent Number 2,511,441) discloses a rotary internal combustion engine.
- Roser (Patent Number EP 085 427 A1) discloses rotary internal combustion engine.
- Bruns (Patent Number DE 37 05 079 A1) discloses a rotary internal combustion engine.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
June 20, 2004

  
Thai-Ba Trieu  
Patent Examiner  
Art Unit 3748